

Application No.: 09/872532

Case No.: 56763US002

REMARKS

Claims 1, 2, 10, 11, 13-19, and 21-27 are pending. Claims 3-9, 12, and 20 have been canceled, claims 22-27 have been added, and claims 1 and 14 have been amended.

§ 103 Rejections

Claims 1-11, 13-19, and 21 stand rejected under 35 USC § 103(a) as being unpatentable over McGurran et al. (US 6,569,517) in view of Weaver et al. (US 6,248,816). Applicant respectfully disagrees and requests reconsideration for the reasons set forth below.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. To support the conclusion that the claimed invention is obvious, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.

The pending claims are believed to be patentable over the cited references for the following reasons.

Independent claim 1, as amended, is directed to a pigmented optical body comprising at least one layer of a thermoplastic polymer material having dispersed therein between 0.01 and 1 percent by weight of a particulate pigment having a mean diameter of no more than 500 nm and further comprising at least one dye in an amount sufficient to adjust the transmitted color of the optical body to a substantially neutral gray.

Application No.: 09/872532

Case No.: 56763US002

Independent claim 14, as amended, is directed to a pigmented optical body comprising at least one layer of a thermoplastic polymer material having dispersed therein a particulate pigment in an amount to produce a tint perceptible to an observer and further comprising at least one dye in an amount to adjust the color of the optical body by no more than 15 units of a* and by no more than 15 units of b*.

New independent claim 26 is directed to a window film comprising a layer of a cast, oriented, polyester-containing polymer material having a thickness of about 0.3 to about 3 mm. The layer includes between 0.02 and 0.5 weight percent carbon black particulate pigment having a mean diameter of no more than 500 nm and a blue dye in an amount sufficient to adjust the transmitted color of the window to a substantially neutral gray.

And new independent claim 27 is directed to a window film consisting essentially of a layer of a cast, oriented, polyester-containing polymer material having a thickness of about 0.3 to about 3 mm. The layer includes between 0.02 and 0.5 weight percent carbon black particulate pigment having a mean diameter of no more than 500 nm and a blue dye in an amount sufficient to adjust the transmitted color of the window to a substantially neutral gray.

None of the cited references taken alone or in combination teach or suggest the invention claimed in independent claims 1, 14, 26 and 27.

The patent to McGurran et al. (US 6,569,517) discloses a color-tailorable, surface metalized, pigmented optical body comprising a single or multiple layer polymeric core comprising at least one layer of a thermoplastic polymer material having dispersed therein a particulate pigment, and a metallic layer on at least one outer surface of the polymeric core. (See Abstract) The reference is concerned with tinting a polymeric film using surface metallization, not dyes, and is concerned with overcoming certain limitations relating to tinting with traditional surface metallization techniques. Each aspect of the McGurran et al. invention includes providing a "*surface-metalized* pigmented optical body" (see e.g. col. 1, line 59-44), thus there would be no reason to use a dye to adjust the appearance of the optical body to a substantially neutral gray.

McGurran et al, also fail to disclose adding at least one dye "in an amount sufficient to adjust the transmitted color of the optical body to a substantially neutral gray" as set forth in claims 1, 26 and 27, or adding at least one dye "in an amount effective to adjust the color of the

Application No.: 09/872532

Case No.: 56763US002

optical body by no more than 15 units of a^* and by no more than 15 units of b^* as set forth in claim 14. Accordingly, the teachings of this reference in no way render the present invention unpatentable.

The Weaver et al. reference does not cure the deficiencies of the McGurran et al. reference. Weaver et al. disclose a polymeric composition including microdenier fibers. The polymeric composition comprises a thermoplastic resin and a dye composition containing an indanthrone compound as a major component. Weaver et al., however, also fail to disclose adding at least one dye in an amount "sufficient to adjust the transmitted color of the optical body to a substantially neutral gray" (claims 1, 26 and 27), or adding at least one dye "in an amount effective to adjust the color of the optical body by no more than 15 units of a^* and by no more than 15 units of b^* " (claim 14). Thus, even if combined, the references fail to teach or suggest all the claim limitations.

As noted in M.P.E.P. §2143, one of the requirements to show a prima facie case of obviousness is that the prior art references, when combined, must teach or suggest all the claim limitations. Because neither McGurran et al. nor Weaver et al. teach the claimed feature of at least one dye added in an amount sufficient to adjust the transmitted color of the optical body to a substantially neutral gray (claim 1, 26 and 27) or at least one dye in an amount effective to adjust the color of the optical body by not more than 15 units of a^* and by no more than 15 units of b^* (claim 14), it is not seen how any of claims 1, 14, 26 or 27 can be considered obvious over this combination of references.

In the present invention, the dye is added to compensate for a yellow tint produced by carbon black, thereby adjusting the transmitted color of the optical body (or window film) to a substantially neutral gray. Weaver et al., on the other hand, do not disclose the use of carbon black pigment. Rather, Weaver et al. teach against the use of carbon black and repeatedly point out the shortcomings of carbon black. (See e.g. col. 3, line 63 - col. 4, line 4; and col. 7, lines 33-37) Thus, rather than teaching the desirability of the suggested combination (i.e. using dye with carbon black particulate pigment), Weaver et al. teach that such a combination would be undesirable. Accordingly, because McGurran et al. employ carbon black, there would be no motivation to make the suggested combination.

Application No.: 09/872532

Case No.: 56763US002

Furthermore, if one were inclined to make the suggested combination, there would be no reasonable expectation of success because Weaver et al. explain that for the materials described therein, pigments are undesirable. (See e.g. col. 1, lines 49-51: "[f]ine denier fibers containing pigment colorants generally result in fibers which lack in strength for practical usage." See also, col. 3, lines 63-65: "pigments notoriously cause clogging of filter packs and erosion of spinnerets in processing steps.") Thus, both the requisite motivation to combine the references and the requisite reasonable expectation of success necessary to make out a prima facie case of obviousness are lacking.

Stated another way, given only the teachings of McGurran et al. and Weaver et al., one would not be motivated to add any dye to an optical body or window film containing carbon black pigment for any reason. Moreover, there is no suggestion that adding a dye would be capable of adjusting the transmitted color of the optical body (or window film) to compensate for the yellow tint produced by the carbon black. It is only with the benefit of hindsight and the knowledge gained from the present application that one would be motivated to add dye to the optical bodies disclosed by McGurran et al. or expect dyes to successfully adjust the transmitted color of the optical body or window film as claimed in the present application.

In summary, one having knowledge of the Weaver et al. reference would be discouraged from modifying the McGurran et al. reference in the manner suggested rather than being motivated to do so. In addition, even if one were to modify the McGurran et al. reference in the manner suggested, which can only be done using impermissible hindsight, the combination of references fails to suggest, teach, or disclose all of the claim limitations in independent claims 1, 14, 26 and 27. Accordingly, each of these claims is believed to be allowable over the cited references. Reconsideration is therefore respectfully requested.

Application No.: 09/872532

Case No.: 56763US002

The remaining dependent claims, as depending from allowable claims, are also deemed to be in condition for allowance. In view of the above, it is submitted that the application is in condition for allowance.

Respectfully submitted,

JANUARY 25, 2005
Date

By: David B. Patchett
David B. Patchett, Reg. No.: 39,326
Telephone No.: (651) 736-4713

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833